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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/585,358	06/02/2000	Atsushi Maeda	500.38618X00	6526

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EXAMINER

ZAND, KAMBIZ

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/585,358

Applicant(s)

MAEDA ET AL.

Examiner

Kambiz Zand

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-15 is/are pending in the application.
- 4a) Of the above claim(s) 5-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 5-15 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/05/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 5-15 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 1-3 drawn to a system for managing public key in an environment having a hierarchical network with a domain name at each hierarchy, having a DNS server provided for each hierarchy classified in class 380, subclass 285. However the newly claims 5-11 drawn to an apparatus connectable to a network having control unit for packet transmission with respect to a domain name and its associated public key classified in class 713/201.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 5-11 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. The text of those sections of Title 35, U.S. Code not included in this section can be found in the prior office action.

3. The prior office actions are incorporated herein by reference. In particular, the observations with respect to claim language, and response to previously presented arguments.

4. Claim 4 have been cancelled.

5. Claims 1-3 have been amended.
6. Claims 1-3 are pending.
7. Examiner withdraws objection to the drawings and specification due to correction by the applicant. The approval of formal drawings submitted by Applicant (paper number 9) have been acknowledged.
8. Examiner withdraws rejection of claim 3 under 35 U.S.C 112-second paragraphs due to correction by the applicant.
9. Examiner withdraws objection of claim 4 under 37 CFR 1.75 due to cancellation of the claim by the applicant.

Claim Objections

10. Claim 3 is objected to because of the following informalities: typo error. Line 4 of claim 3 refers to "DMS server". Examiner suggests "DNS server". Appropriate clarification or correction is requested.

Response to Arguments

11. Applicant's arguments with respect to the claims 1 and 3 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 1 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman (5,455,865 A) in view of Zdepski et al (5,825,884 A).

As per claim 1 Perlman (5,455,865 A) teach a system having a hierarchical network (see fig.1, 7a-b; col.2, lines 33-36 where a hierarchical network is disclosed) with a domain name and address at each hierarchy (see fig.3a,4a,6a-b and 8a where each source or node of hierarchical network has a domain name and unique address represented by source id's; col.5, lines 31-40); and database for storing the public key (see col.5, lines 34-40 where a memory is an storage for storing data and where allocation of the public key and unique id's and other information in lines 41-57 is the database of each node since the database is nothing but a space within an storage area where information is kept) comprising having an inquiry from a first host to the second host to obtain information on the public key of the second host; triggering a response by sending the information on public key of the second host to the first host (see col.5, lines 58-67; col.6, lines 1-11 where by using a handshake the request for inquiry and

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the response is being taken place and where each node transmit the public key requested by the other node in order to identify themselves to each other) but do not disclose a DNS server provided at each hierarchy where the DNS server distribute a public key of a host to the host belongs to the network. However Zdepski et al (5,825,884 A) disclose a DNS server provided at each hierarchy where the DNS server distribute a public key of a host to the host belongs to the network (see fig.2, item 276; fig.5; col.2, lines 24-31; col.5, lines 64-67 and col.6, lines 1-20 where the database server that stores subscribers public keys and their ids corresponds to DNS server that stores public keys and by handshaking and request and challenge communicate with other hosts to provide request service based on association of the public key stored and its association with the id of the other host). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Zdepski et al's public key database within a server in Perlman's hierarchical network in order to provide protection for certain proprietary database interacting with other segments of the interactive environment.

As per claim 3 Perlman (5,455,865 A) teach a method for managing a public key as claimed in claim 1, wherein said host provides means for inquiring said server of the public key of another host (see col.5, lines 58-67; col.6, lines 1-11 where by using a handshake the request for inquiry and the response is being taken place and where each node transmit the public key requested by the other node in order to identify themselves to each other); and means serving to inquire said server of the

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corresponding public key to the domain name of the target host when security communication is started (see fig.4b,5a and 5b where means for inquiry with respect to corresponding information are disclosed based on the communication between the nodes) but do not disclose a DNS server provided at each hierarchy where the DNS server distribute a public key of a host to the host belongs to the network. However Zdepski et al (5,825,884 A) disclose a DNS server provided at each hierarchy where the DNS server distribute a public key of a host to the host belongs to the network (see fig.2, item 276; fig.5; col.2, lines 24-31; col.5, lines 64-67 and col.6, lines 1-20 where the database server that stores subscribers public keys and their ids corresponds to DNS server that stores public keys and by handshaking and request and challenge communicate with other hosts to provide request service based on association of the public key stored and its association with the id of the other host). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Zdepski et al's public key database within a server in Perlman's hierarchical network in order to provide protection for certain proprietary database interacting with other segments of the interactive environment.

14. **Claims 1 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman (5,455,865 A) in view of Sistanizadeh et al (5,790,548 A) and further in view of Zdepski et al (5,825,884 A).

As per claim 1 Perlman (5,455,865 A) teach a system having a hierarchical network (see fig.1, 7a-b; col.2, lines 33-36 where a hierarchical network is disclosed) with a domain name and address at each hierarchy (see fig.3a,4a,6a-b and 8a where each source or node of hierarchical network has a domain name and unique address represented by source id's; col.5, lines 31-40); and database for storing the public key (see col.5, lines 34-40 where a memory is an storage for storing data and where allocation of the public key and unique id's and other information in lines 41-57 is the database of each node since the database is nothing but a space within an storage area where information is kept) comprising having an inquiry from a first host to the second host to obtain information on the public key of the second host; triggering a response by sending the information on public key of the second host to the first host (see col.5, lines 58-67; col.6, lines 1-11 where by using a handshake the request for inquiry and the response is being taken place and where each node transmit the public key requested by the other node in order to identify themselves to each other) but do not disclose a DNS server. However Sistanizadeh et al (5,790,548 A) disclose a network having more than one DNS server (see col.2, lines 58-64). It would have been obvious to utilize Sistanizadeh et al's DNS servers in different location within Perlman's hierarchical network in order to provide hosts resolution addresses to the users such as translation of the domain names into IP addresses. However Perlman in view of Sistanizadeh et al do not disclose DNS server that also holds public key database. On the other hand Zdepski et al (5,825,884 A) disclose a server provided at each hierarchy where the server distribute a public key of a host to other host belongs to the network

(see fig.2, item 276; fig.5; col.2, lines 24-31; col.5, lines 64-67 and col.6, lines 1-20 where the database server that stores subscribers public keys and their ids corresponds to DNS server that stores public keys and by handshaking and request and challenge communicate with other hosts to provide request service based on association of the public key stored and its association with the id of the other host). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Zdepski et al's public key database within a server in Perlman's hierarchical network in view of Sistanizadeh et al DNS server in order to provide protection for certain proprietary database interacting with other segments of the interactive environment.

As per claim 3 Perlman (5,455,865 A) teach a method for managing a public key as claimed in claim 1, wherein said host provides means for inquiring said server of the public key of another host (see col.5, lines 58-67; col.6, lines 1-11 where by using a handshake the request for inquiry and the response is being taken place and where each node transmit the public key requested by the other node in order to identify themselves to each other); and means serving to inquire said server of the corresponding public key to the domain name of the target host when security communication is started (see fig.4b,5a and 5b where means for inquiry with respect to corresponding information are disclosed based on the communication between the nodes) but do not disclose a DNS server. However Sistanizadeh et al (5,790,548 A) disclose a network having more than one DNS server (see col.2, lines 58-64). It would have been obvious to utilize Sistanizadeh et al's DNS servers in different location within

Perlman's hierarchical network in order to provide hosts resolution addresses to the users such as translation of the domain names into IP addresses. However Perlman in view of Sistanizadeh et al do not disclose DNS server that also holds public key database. On the other hand Zdepski et al (5,825,884 A) disclose a server provided at each hierarchy where the server distribute a public key of a host to other host belongs to the network (see fig.2, item 276; fig.5; col.2, lines 24-31; col.5, lines 64-67 and col.6, lines 1-20 where the database server that stores subscribers public keys and their ids corresponds to DNS server that stores public keys and by handshaking and request and challenge communicate with other hosts to provide request service based on association of the public key stored and its association with the id of the other host). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Zdepski et al's public key database within a server in Perlman's hierarchical network in view of Sistanizadeh et al DNS server in order to provide protection for certain proprietary database interacting with other segments of the interactive environment.

Allowable Subject Matter

15. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. US (5,833,810A) teach electronic online commerce card with transaction proxy number for online transactions.

U.S. Patent No. US (5,870,475 A) teach facilitating secure communications in a distribution network.

U.S. Patent No. US (6,023,507 A) teach automatic remote computer monitoring system.

U.S. Patent No. US (5,422,953 A) teach personal date/time notary device.

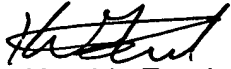
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Zand whose telephone number is (703) 306-4169. The examiner can normally be reached on Monday-Thursday (8:00-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Kambiz Zand', written in a cursive style.

Kambiz Zand

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